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Analytical Paper

Analysis in Brief

Manufacturing: The Year 2008 in Review

by Russell Kowaluk and Rob Larmour, Manufacturing and Energy Division



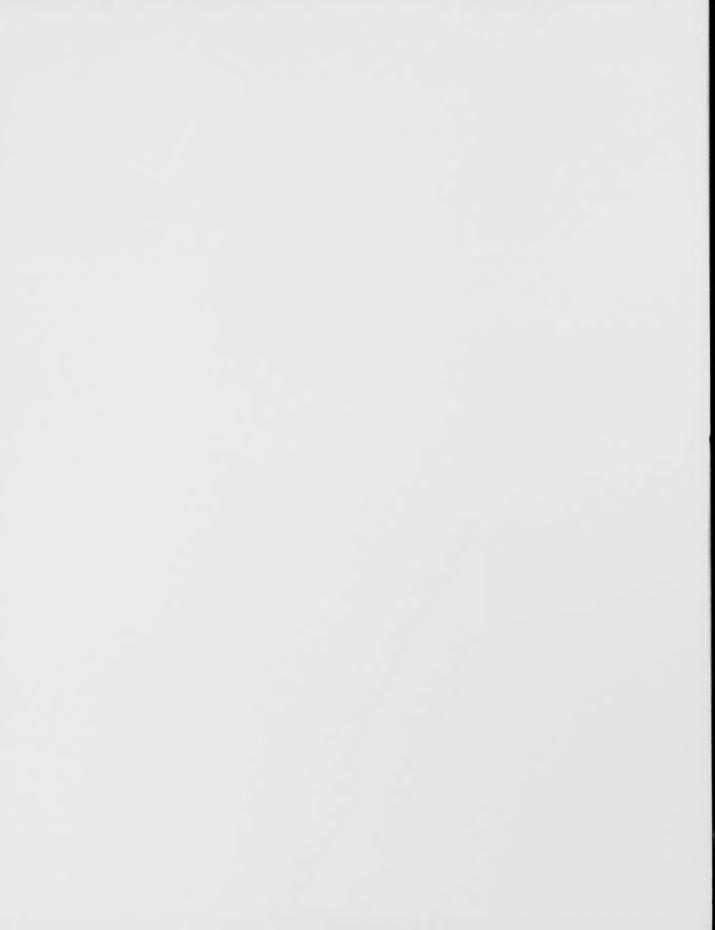
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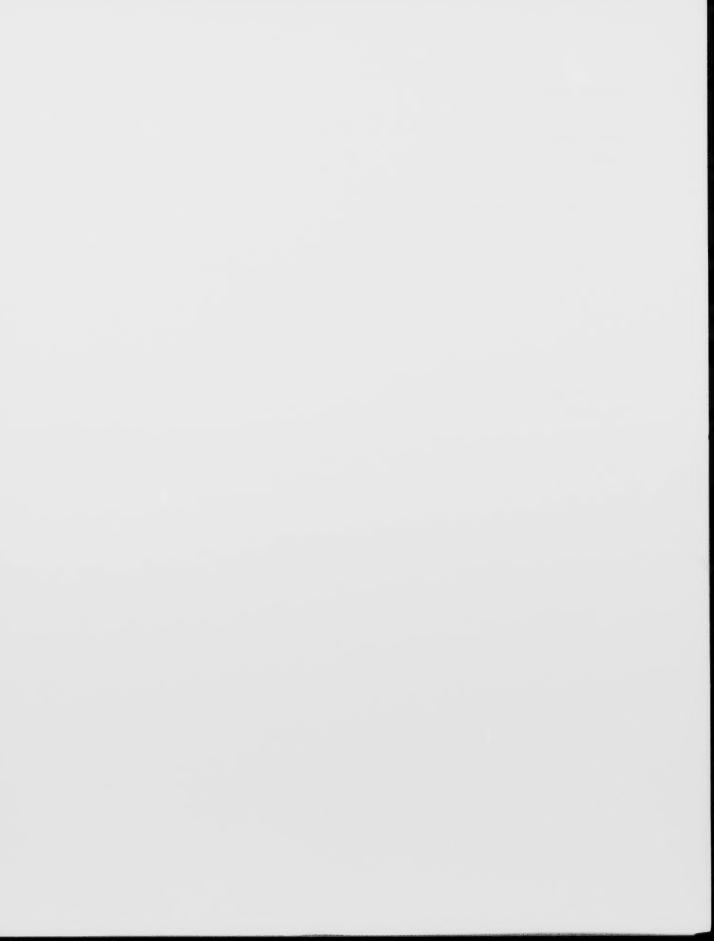
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Manufacturing: The Year 2008 in Review

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- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the Statistics Act
- E use with caution
- F too unreliable to be published

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Manufacturing: The Year 2008 in Review

by Russell Kowaluk and Rob Larmour, Manufacturing and Energy Division

1 Summary

Key indicators of the Canadian manufacturing sector's health declined on nearly every front in 2008 from the volume of sales to employment and labour productivity. It was also a year of contrast with uneven growth over the course of the year and across industries.

Steep price increases in the oil and primary metals industries in the first half of the year pushed up the total value of sales while volume of sales grew at a slower pace. In the second half of the year, both the value and volume of sales declined.

In total, manufacturing sales remained relatively stable in 2008, decreasing by a modest 0.4% from 2007 to \$604.7 billion. The volume of goods sold fell 6.7% to \$546.4 billion, the lowest level since 2001. It was also the third successive annual decline in sales volume. A sharp reduction in foreign and domestic demand during the second half of the year further contributed to the slowdown of activity in Canadian factories.

Sales of industries driven by discretionary consumer spending such as motor vehicles and wood products were in decline throughout much of 2008. But these declines were offset by exceptional price increases and strong demand for goods from commodity-based industries such as petroleum products and primary metals in the first half of the year. However, by the third quarter of 2008, demand had quickly disappeared as the scope of the global downturn widened.

In 2008, 13 of the 21 manufacturing industries posted sales declines. Most notably, manufacturing sales of motor vehicles fell 22.0% to \$47.3 billion in 2008, a 14-year low. The wood products industry was on the decline for a fourth year in a row, as sales continued to fall by 13.1% to \$21.7 billion in 2008.

By contrast, higher prices pushed up manufacturing sales of petroleum and coal products by 22.2% to an unprecedented \$81.5 billion, the seventh annual increase in a row. The value of petroleum products sales surpassed that of food and motor vehicles, Canada's previous biggest players. Primary metals and chemical products industries also benefited from robust demand for most of the year, both registering increases just above 4.0%.

Large gains in petroleum, primary metal and chemical products industries boosted sales in several provinces. Newfoundland and Labrador, New Brunswick, Nova Scotia, Saskatchewan and Alberta all reported sharply higher manufacturing sales. This was due in part to high prices, as well as busy refineries and strong demand for chemical and primary metal products for most of the year.

In Quebec, robust growth in the aerospace and petroleum products industries contributed to a 1.8% rise in total sales to \$150.9 billion. In Ontario, sharply reduced sales of motor vehicles, auto parts, plastics and rubber products contributed to a 4.6% drop in total manufacturing sales to \$278.3 billion, the lowest level since 1998.

Employment in the manufacturing sector continued to decline in 2008, shrinking by about 84,800 to 1.7 million. Employment has declined at an annual average rate of 2.4% since peaking at 2.0 million in 2000.

Labour productivity in manufacturing fell 0.7% in 2008, the first decline since 2001. At the same time, there were declines in both investment in plant and equipment and the industrial capacity utilization rates in manufacturing.

Manufacturers' operating profits remained almost unchanged in 2008 at \$46.3 billion. Excluding motor vehicles and parts industries, operating profits increased 10.7% in 2008 compared with 5.4% for the economy as a whole.

This article examines the performance of Canada's manufacturing sector in 2008, using data mainly from the Monthly Survey of Manufacturing.

Note to readers

The Monthly Survey of Manufacturing (MSM) publishes statistical series for manufacturers—sales of good manufactured, inventories, unfilled orders and new orders. Industries are classified according to the 2007 North American Industrial Classification System (NAICS).

Non-durable goods industries include food, beverage and tobacco products, textile mills, textile product mills, clothing, leather and allied products, paper, printing and related support activities, petroleum and coal products, chemicals, and plastics and rubber products.

Durable goods industries include wood products, non-metallic mineral products, primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, appliances and components, transportation equipment, furniture and related products and miscellaneous manufacturing.

The value of production is used instead of sales of goods manufactured by the aerospace product and parts, and ship building industries. This value is calculated by adjusting monthly sales of goods manufactured by the monthly change in inventories of goods / work in process and finished goods manufactured.

Also, changes in the values of manufacturing sales reported by the MSM can be attributable to changes in the prices and /or the volume of goods sold. To analyse the volume of activities in the manufacturing sector, the variations due to price changes are separated from those due to the quantities produced or sold. This practice is known as deflation. Deflation consists in dividing the values of sales at current prices obtained from the MSM by suitable price indexes in order to obtain estimates evaluated at the prices of a previous period, currently the year 2002. The resulting deflated values are said to be "at 2002 prices."

The value of inventories are collected at cost value of raw materials and components, any goods / work in process, and finished goods manufactured inventories separately. Inventory levels are calculated on a Canada-wide basis, not by province.

Manufacturing sales volumes sharply lower

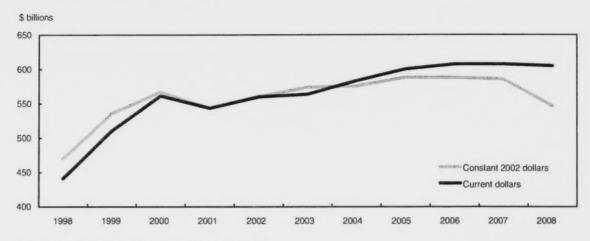
The year 2008 was one of contrast with uneven growth over the course of the year and across industries. Steep price increases in the oil and primary metals industries in the first half of the year pushed up the total value of sales while volume of sales grew at a slower pace. In the second half of the year, both the value and volume of sales declined.

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In 2008, 13 of the 21 manufacturing industries posted sales declines. Most notably, manufacturing sales of motor vehicles fell 22.0% to \$47.3 billion in 2008, a 14-year low. The wood products industry was on a decline for a fourth year in a row, as sales fell by a further 13.1% to \$21.7 billion in 2008.

Through 2008, the US economy unravelled. While the sub-prime mortgage and financial crisis gripped the United States, lending institutions tightened access to credit. These and other factors including drops in employment and consumer confidence, income and wealth in the later months of the year, may have contributed to reduced demand for goods manufactured in Canada.

Chart 1
Manufacturers cut sales volumes in 2008



Source(s): Statistics Canada, CANSIM tables 304-0014 and 377-0008

Volatile exchange rates also contributed to the uncertainty. In recent years, the value of the US dollar had depreciated against other currencies, including the Canadian dollar. This trend, coupled with the strength of Canada's resource sector, contributed to the appreciation of the Canadian dollar relative to the US dollar to levels not seen since the late 1970s. As a result, the high value of the Canadian dollar in the first half of the year eroded the price advantage of Canadian-made goods versus those of their US counterparts.

By the second half of 2008, as economies around the world deteriorated and demand for natural resources weakened, the value of the Canadian dollar depreciated sharply against that of the US greenback. However, with the continued contraction of the US economy, this depreciation of the Canadian dollar did not translate into higher demand from US customers.

3 Manufacturing sales also contracted in the United States during the second half of the year

The health of the Canadian manufacturing sector is closely linked to the performance of the US economy. Industries in both countries face similar challenges, while they differ somewhat in structure and in performance.

The American manufacturing industry has been on a steady rise since its last slowdown of 2001 and 2002, growing at an annual average pace of 4.8% between 2002 and 2008.1 During the same period, Canadian manufacturing sales were up 1.3% a year on average.

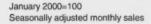
In 2008, US manufacturers reported a 2.0% annual gain in sales to \$5.2 trillion, which is about nine times the size of Canada's sector. As in Canada, much of the increase was concentrated in the commodity-based sector in the first half of the year. Excluding the price-inflated industries of petroleum and chemical products, US manufacturing sales declined 0.9% compared with a 3.9% decline for Canada.

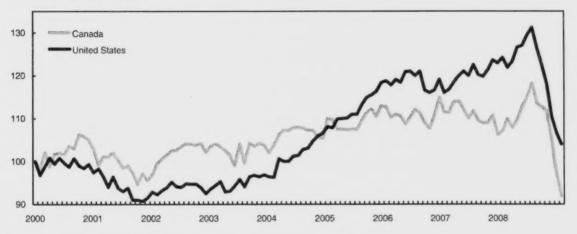
The composition of the American manufacturing sector was similar to that of Canada, with a few exceptions. In 2008, the top two manufacturing industries in the United States were chemical products, with sales worth \$689.3 billion, and petroleum and coal products at \$674.0 billion. Each of these industries represented roughly 13% of total sales.

¹ See U.S. Department of Commerce, M3 Survey, U.S. Census Bureau, http://www.census.gov/indicator/www/m3/hist/naicshist.htm (accessed on April 22, 2009).

In Canada, the petroleum and coal products ranked as the top industry in 2008, representing roughly 13% of total manufacturing sales, the same share as in the United States. However, the chemical products industry ranked fourth in Canada with 8.5% of sales.

Chart 2
Canadian and US manufacturing sectors both experienced significant drops in sales in the second half of 2008





Source(s): Statistics Canada, CANSIM table 304-0014 and U.S. Census Bureau.

Canada's transportation equipment sector remained a bigger player relative to its US counterparts, with a 16% share of total Canadian sales, compared to a 12% share in the United States. The computer and electronic products represented just 3% of total Canadian sales following years of plant closures and restructuring. This was about half its share prior to the telecom crash in 2001. At 7%, the US computer and electronic products manufacturing industry had more than double Canada's share.

4 Decline in sales for manufacturing industries driven by discretionary consumer spending

While most industries posted lower sales in 2008, the scope of the US downturn directly affected some of Canada's principal manufacturing industries. Still, industries were affected differently and to varying degrees, depending on whether their products were of a discretionary nature or not to consumers. For example, industries such as motor vehicles and wood products are closely driven by discretionary consumer demand since the purchase of a new car or a new home may be easily postponed during difficult economic times.

4.1 Flagging consumer demand for cars

The motor vehicle and related manufacturing industries were among the hardest hit as North American retail sales for autos and trucks weakened substantially in 2008. By the close of the year, many of Canada's auto assembly lines had either shut temporarily or were operating at a much-reduced capacity. This was a combined attempt to reduce retail inventories and to restructure operations.

In 2008, manufacturing sales of motor vehicles fell 22.0% to \$47.3 billion, a 14-year low. Sales were 40% below the peak of \$78.3 billion in 1999. The industry's share of total factory sales in 2008 fell to 7.8%, a decline of more than two percentage points from the year before.

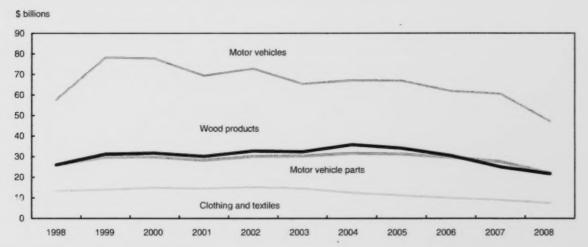
Several factors may have contributed to the sharp decline in the motor vehicle industry. The US credit crunch and economic downturn made financing more difficult. In addition, soaring prices for gasoline earlier in the year led to different buying patterns by consumers.

Canada's sharply lower sales levels were directly related to the collapse in US demand for motor vehicles. The majority of Canadian-made automobiles and light trucks are exported to the United States. In 2008, exports of automotive products plunged 21.0%.² Meanwhile, US retail sales of motor vehicles dropped 18.0% last year, as dealerships sold about 2.9 million fewer vehicles.³

The Canadian retail market for motor vehicles rapidly deteriorated in the final quarter following a robust start to 2008. Sales closed the year down 1.1%.4

The slowdown in the assembly of motor vehicles also affected subsidiary industries. Sales of motor vehicle parts were down almost 21% to \$21.9 billion, the second biggest decline among all manufacturing industries in 2008, after motor vehicles. Substantial decreases were also reported by the motor vehicle body and trailers and plastics and rubber products industries.

Chart 3
Motor vehicles and parts and wood products industries continue to weaken sharply



Source(s): Statistics Canada, CANSIM table 304-0014.

4.2 Weak housing market continued to erode demand for wood products

The export-oriented wood products industry was on the decline for a fourth year in a row, as sales continued to fall by 13.1% to \$21.7 billion in 2008, after double-digit declines in both 2006 and 2007. Sales in 2008 were nearly 40% below their most recent high of \$35.8 billion in 2004. At 2002 prices, sales of wood products were 12.0% lower, while numerous mills closed across the country. The average annual price of wood products also continued its decline by 2.0% in 2008.⁵

Source: Statistics Canada, CANSIM table 228-0041.

4. Ibid.

³ See DesRosiers Automotive Consultants Inc., DesRosiers Automotive Reports, December 2008 edition, vol. 23, http://www.desrosiers.ca/publishinggroup.html (accessed on March 18, 2009).

^{5.} Source: Statistics Canada, CANSIM table 329-0042

The downturn in the wood industry, which primarily affected British Columbia and Quebec, was largely attributable to a severe slump in the US housing market. In 2008, housing starts fell below a million units for the first time since 1945.6

5 Continued decline for clothing and textile products

The clothing and textile products industries continued their secular decline in 2008. Manufacturing sales of clothing fell 23.9%, while those of textile mills and textile product mills fell 12.1% and 10.7% respectively. Since starting to decline in 2001, these industries have faced stiff competition from lower-priced manufacturers largely in Asia. This became most apparent in 2005 when quotas on imported textile and clothing products were lifted to meet new rules from the World Trade Organization. In 2008, manufacturing sales of clothing were almost 60% below their peak of \$8.0 billion in 2002.

6 Commodity-based manufacturing industries: High prices early in the year boosted sales in some industries

Some commodity-based industries such as petroleum and coal, chemical and primary metal products industries benefited from soaring commodity prices in recent years.

For the first time, Canada's petroleum and coal products industry became the nation's number one manufacturing industry with unprecedented sales of \$81.5 billion. By mid-summer, the price of crude oil had peaked at US\$145 per barrel. High prices for energy products in the first half of the year contributed to a year-ending 22.2% jump in sales of petroleum and coal products, the seventh annual increase in a row.

The industry's increase might have been substantially larger had petroleum prices not fallen during the second half of the year. By the close of 2008, industrial prices for petroleum and coal products had dropped by almost 50% from their July peak.⁷

Other large commodity-based manufacturing industries included primary metals and chemical products which recorded increases of 4.3% and 4.1% respectively. Although 2008 prices for assorted primary metals were below the record levels of 2007, robust demand contributed to the growth in this industry for most of the year. With sales of \$55.2 billion, the primary metals industry was Canada's third largest manufacturing industry.

Higher prices for fertilizer were a key factor in the increase in manufacturing sales of chemical products to \$51.1 billion. As a result, the industry moved up one spot to become Canada's fourth biggest manufacturing industry.

7 Manufacturers of food, aerospace products and machinery still growing in 2008

Other industries such as food, aerospace products and machinery continued to record steady increases in 2008.

Food manufacturing, the second largest industry, posted sales of \$78.1 billion, a 5.8% increase over 2007. Increased demand and substantial price hikes in grains and oilseed milling contributed to the gain. In 2008, the volume of manufactured food rose 1.5%, just exceeding the 1.2% rise in Canada's population during the same period. Population growth is a major determinant of food demand.

Food has accounted for a growing share of total manufacturing sales over the last couple of years; in 2008, it represented 13%.

⁶ See Natural Resources Canada, Forest Industry Report, December 2008 issue, January 20, 2009.

^{7.} Source: Statistics Canada, CANSIM table 329-0038.

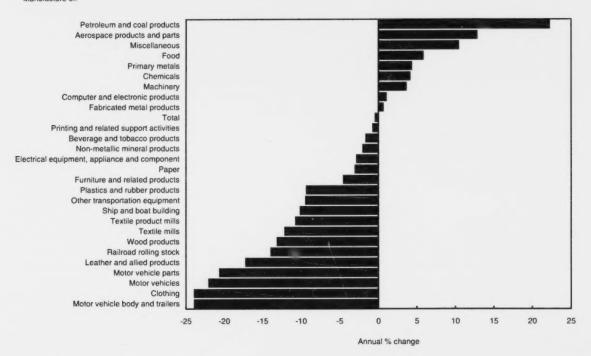
^{8.} Source: Statistics Canada, CANSIM table 051-0005.

Canadian manufacturers of aerospace products reacted to pent-up global demand for both commercial and defence aircraft and parts by boosting production a healthy 12.8% to \$18.4 billion in 2008. At 2002 prices, aerospace production climbed a robust 6.5% from 2007. Of the seven industries which comprised the transportation equipment sector, aerospace manufacturing was the lone industry to increase output.

Manufacturing sales of machinery advanced 3.6% in 2008. Volumes were also up, although the majority of the growth occurred in the first half of the year.

Chart 4
Decline in sales for most industries in 2008

Manufacture of:



Source(s): Statistics Canada, CANSIM table 304-0014.

8 Some commodity-based manufacturing industries improved sales in several provinces

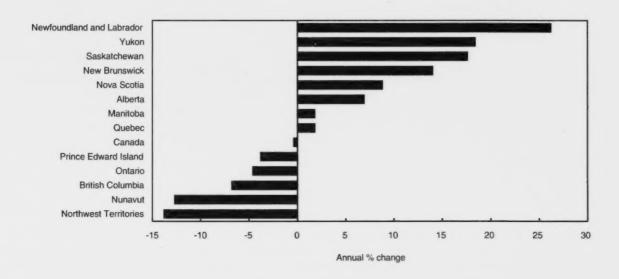
In general, commodity prices played a significant role at the provincial level, as sales increased in seven provinces in 2008.

Large gains in petroleum, primary metal and chemical products industries boosted sales in several provinces. Newfoundland and Labrador, New Brunswick, Nova Scotia, Saskatchewan and Alberta all reported sharply higher manufacturing sales. This was due in part to high prices, as well as busy refineries and strong demand for chemical and primary metal products for most of the year.

The Atlantic provinces increased their share of Canadian manufacturing sales by almost one percentage point to 6% and the Western provinces improved their share to 23%, both at the expense of Ontario.

Robust growth in Quebec's aerospace and petroleum products industries were behind the 1.8% rise to \$150.9 billion in total manufacturing sales in the province. Manitoba's diversified manufacturing sector reported a 1.8% gain, although this was substantially lower than the 8.5% increase in 2007, which was largely attributed to a boom in the province's primary metals industry.

Chart 5
Majority of provinces posted higher sales



Source(s): Statistics Canada, CANSIM table 304-0015.

Ontario, one of the three provinces that reported lower sales in 2008, remained Canada's largest province in terms of manufacturing output, although the sector has been hit particularly hard by weaker demand from the United States.

Sharply reduced sales of motor vehicles, auto parts, plastics and rubber products accounted for most of the 4.6% drop in sales to \$278.3 billion, the lowest level since 1998. In 1999, Ontario accounted for 55% of Canada's total manufacturing sales. By year's end, its share had fallen to 46%.

Manufacturing sales in British Columbia fell 6.8%, as the province's important wood products industry worsened, owing to the downturn of the North American housing market. Prince Edward Island reported a 3.8% decrease in manufacturing sales in 2008, owing mainly to a 5.8% drop in the province's food manufacturing industry. Overall, the three territories experienced a 2.1% decline in manufacturing activity, the third successive drop.

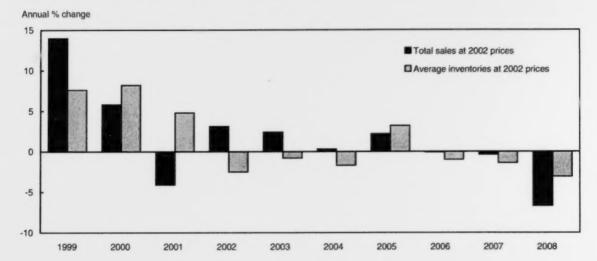
9 Manufacturers trying to keep tight control of inventories

As the economy started to slow, Canadian manufacturers tried to keep their inventories in check. At 2002 prices, the annual average of manufacturing inventories dropped 3.1% in 2008, trailing modest declines in both 2006 and 2007. The decreases coincided with similar reductions in the volume of manufacturing sales over the same years.

During the economic slowdown in 2001, some manufacturers had built up substantial inventories, clearing them much later following the recovery.

The inventory-to-sales ratio is another indicator of the health of manufacturing activity. The ratio is a measure of the time, in months, that would be required to exhaust inventories if sales were to remain at their current level.

Chart 6
Manufacturers kept lower inventory levels as sales declined in 2008



Source(s): Statistics Canada, CANSIM table 377-0008.

In recent years, this ratio has been relatively stable for the Canadian manufacturing sector, though consistently higher compared to their US counterparts. Various reasons may have contributed to the noted difference between the two countries, including the composition of key inventory-holding industries in Canada versus the United States, as well as the difference in the share of inventories by the stage of fabrication between the two countries.

The gap of the ratios between the two countries has narrowed sharply in recent years. The US annual average inventory-to-sales ratio rose 11 basis points from 2005 to 2008 to 1.28, compared to Canada's one basis point rise over the same period to 1.33.

10 Manufacturers continue to cut jobs in 2008

Employment in the manufacturing sector continued to decline in 2008. According to the Survey of Employment, Payroll and Hours, Canadian manufacturers have reduced payroll employment by 4.8%, a decline of about 84,800 jobs. As a result, manufacturing employment totalled 1.7 million in 2008 after declining at an annual average rate of 2.4% since its all time high of 2.0 million in 2000.

In contrast, employment in all other sectors of the economy⁹ increased 2.9% a year on average. As a consequence, manufacturing's share of total employment¹⁰ fell sharply from 16% in 2000 to 11% in 2008.¹¹

Employment fell in 19 of 21 manufacturing industries in 2008. The largest reductions occurred in industries where sales rely heavily on discretionary consumer spending. Within the manufacturing sector, the biggest decline in employment, 9.9% or 15,000 jobs, occurred in motor vehicle and parts industries. It was followed closely by the wood industry, where the number of factory jobs fell by 10.3%, a reduction of 12,600 jobs.

⁹ Excluding self-employed persons as well as individuals working in agriculture, fishing and trapping industries, religious organizations and the members of Canadian Armed Forces.

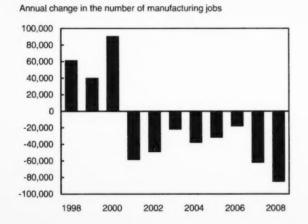
^{10.} Ibid

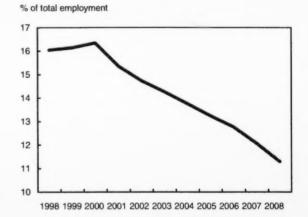
For more details on trends in manufacturing employment, see André Bernard, "Trends in manufacturing employment," Perspectives on Labour and Income, vol. 10, no. 2, February 2009, Statistics Canada Catalogue no. 75-001-X2009, http://www.statcan.gc.ca/pub/75-001-x/2009102/article/10788-eng.htm (accessed March 20, 2009)

Provincially, Ontario recorded a 5.7% decline (-45,500 jobs) in manufacturing employment, followed by Quebec with a 6.2% drop (-30,000 jobs) and British Columbia with a 4.4% drop (-7,300 jobs). In Ontario, one out of every five manufacturing jobs disappeared between 2000 and 2008.

Manufacturing employment rose in only two provinces in 2008: Nova Scotia benefited from increases in transportation equipment while Saskatchewan added jobs in machinery.

Chart 7 Another year of job cuts reduced manufacturing share of total employment





Source(s): Statistics Canada, CANSIM table 281-0023.

11 Overall decline in capital investment, except for commodity-based manufacturing industries

Total manufacturing investment in plant and equipment decreased 2.5% to \$20.1 billion in 2008. Despite some large contributions from enterprises in various industries, overall capital expenditure among manufacturers was pulled down by the transportation equipment industry. Following two years of growth, manufacturers of transportation equipment cut investments by 16.6% to \$3.9 billion in 2008.

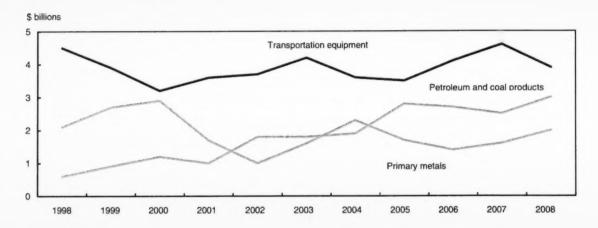
Capital investments among the 21 manufacturing industries were mixed in this roller coaster of a year. The two largest additions to capital expenditures in 2008 were from commodity-based industries. High commodity prices in the first half of the year and expectation of strong returns led to increased investment in capital and modernization.

Petroleum and coal products manufacturers increased investment by 22.1% to 3.0 billion in 2008. This represents an increase of \$547.2 million over 2007 and the highest level on record dating back to 1991. In the past four years, this industry has committed more to capital investment than in the preceding 11 years.

Higher prices of iron and steel products have helped enterprises to boost their investments in primary metals facilities in 2008. Capital expenditures increased by 28.0% to \$2.0 billion resulting in the industry's highest level of investment in four years.

On a provincial basis, Quebec benefited from the largest annual increase in investment. This was offset by declines in Ontario and British Columbia, paralleling a weakness in manufacturing activity in these provinces in 2008.

Chart 8
Transportation equipment industries pulled overall investment down

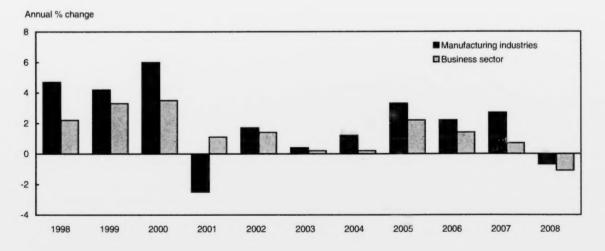


Source(s): Statistics Canada, CANSIM table 029-0009.

12 First decline in labour productivity since 2001 in the manufacturing sector

Labour productivity in the manufacturing sector fell 0.7% in 2008. This decline, the first since 2001, came after the recording of six years of consecutive gains which were all above the average of the business sector as a whole.

Chart 9
Labour productivity in manufacturing decreased for the first time since 2001



Source(s): Statistics Canada, CANSIM tables 383-0008 and 383-0012.

Labour productivity, as measured by real gross domestic product (GDP) per hour worked is a major determinant of economic growth and standard of living.

The 2008 productivity decline for manufacturers was due predominantly to the decline in manufacturing output which exceeded the decrease in the number of hours worked. Real GDP in manufacturing edged down 5.1% in 2008, while the number of hours worked dropped 4.4%, following significant job losses in the manufacturing sector.

Labour productivity in the Canadian business sector as a whole fell 1.1%. It was the first time since 1996 that annual productivity declined. In 2008, production of goods and services sold on markets by Canadian businesses fell for the first time since 1991. At the same time, hours worked continued to rise, albeit at less than half the rate of the previous two years.

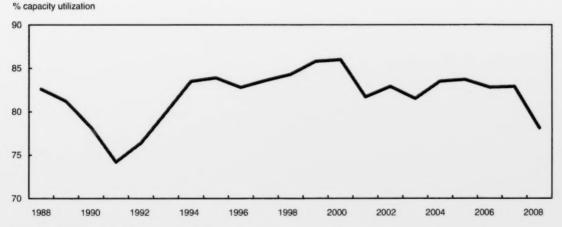
13 In 2008, 18 out of 21 manufacturing industries reduce industrial capacity utilization

Industrial capacity utilization in the manufacturing sector fell from 83% in 2007 to 78% in 2008, a 4.8 percentage point decline. This level compares with rates that prevailed during the 1990 recession. The industrial capacity utilization rate is a measure of the intensity with which industries use their production capacity.

Industrial capacity utilization decreased throughout 2008, dominated by reductions in industries driven by discretionary consumer spending such as transportation equipment and wood products. The largest drop occurred in the fourth quarter, a 5.0 percentage point decline.

Industrial capacity utilization for the transportation equipment industry fell from 87% in 2007 to 69% in 2008, a level not seen since 1987. This reduction of 18 percentage points was due to weak demand for new motor vehicles which led to temporary plant shutdowns in the second half of 2008.

Industrial capacity utilization fell to rates not seen since the early 1990s



Source(s): Statistics Canada, CANSIM table 028-0002.

Petroleum and coal producers reduced their industrial capacity utilization rate in 2008 to its lowest since 1987. The rate fell from 83% in 2007 to 81% in 2008 as the industry reduced production for a seventh consecutive year despite greater investment. A reduction in output during the second half of the year was attributable to temporary shutdowns at refineries for repair and maintenance.

Higher metal prices in the first part of the year encouraged primary metal manufacturers to increase production in the third quarter, reaching 96%, their highest quarterly rate in 20 years. This boom quickly reversed in the fourth quarter, as global demand and production for primary metals fell, bringing down the industrial capacity utilization rate to 85%. Industrial capacity utilization rate in the sector averaged 92% in 2008.

Producers of food, machinery, and miscellaneous goods were the only ones to increase industrial capacity utilization in 2008

14 Motor vehicle and parts manufacturers recorded operating losses in 2008

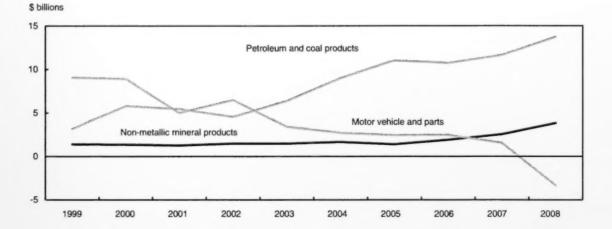
According to the Quarterly Survey of Financial Statistics (QFS), operating profits of manufacturers remained almost unchanged in 2008 at \$46.3 billion. For the total economy, annual operating profits were up 5.4%, despite the largest quarterly decline in 16 years recorded in the fourth quarter of 2008.

Motor vehicle and parts producers reported a loss of \$3.3 billion in operating profits as manufacturing sales in motor vehicle related industries experienced significant declines in 2008. The automotive industry ended the year with three consecutive guarterly losses of profits, the only manufacturing industry to finish in the red.

Excluding motor vehicles and parts, manufacturers' operating profits increased 10.7% in 2008. In 1999, the motor vehicles and parts industries accounted for about 20% of total manufacturing profits. These industries have gradually been displaced by petroleum and coal products, and chemical products industries, as top contributors among manufacturers.

Manufacturers of computer and electronic products saw their operating profits fall by 19.8% to \$2.4 billion in 2008, the first decline in six years.

Chart 11
Motor vehicle and parts producers recorded operating losses in 2008



Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

Strong prices boosted operating profits for some commodity-based manufacturing industries such as petroleum and coal, fabricated metal and non-metallic mineral products midway through 2008 before falling again at the end of the year. Much of the growth came from manufacturers of petroleum and coal products, who recorded a 17.9% rise in operating profits to \$13.7 billion.

Non-metallic mineral products producers, which include the manufacturing of concrete and cement, increased operating profits by 50.5% to \$3.8 billion. Despite a reduction in the volume of sales, profits for non-metallic mineral

products manufacturers were supported by a relative stability in the non-residential construction sector, as well as higher prices for cement and concrete products, which rose by 3.8% in 2008.

15 Manufacturing activity in the year ahead

As 2008 drew to a close, the Canadian economy was in a significantly weakened state, and it remains to be seen what would unfold for the manufacturing sector in 2009.

Based on the early results of the Monthly Survey of Manufacturing program, weakness in the motor vehicle and parts industries contributed to another steep decline in manufacturing sales for January 2009, a continuation from the final months of 2008. Manufacturers' sales stabilized somewhat in February, but at a much reduced level.

More recent information on manufacturing sales and inventories are available in the Statistics Canada publication The Daily (http://www.statcan.gc.ca).

16 Statistical tables

Table 1
Manufacturing sales by industry, 2007 and 2008

	2007	2008	Change, 2007 to 2008	Share, 2008
_	\$ billions		percent	
Total, manufacturing industries	607.3	604.7	-0.4	100.0
Non-durable goods industries	276.9	292.7	5.7	48.4
Food	73.9	78.1	5.8	12.9
Beverage and tobacco products	10.9	10.7	-1.6	1.8
Textile mills	2.2	2.0	-12.1	0.3
Textile product mills	2.5	2.2	-10.7	0.4
Clothing	4.3	3.3	-23.9	0.5
Leather and allied products	0.5	0.4	-17.2	0.1
Paper	30.2	29.4	-3.0	4.9
Printing and related support activities	10.6	10.5	-0.7	1.7
Petroleum and coal products	66.7	81.5	22.2	13.5
Chemicals	49.1	51.1	4.1	8.
Plastics and rubber products	25.9	23.5	-9.3	3.9
ourable goods industries	330.5	312.0	-5.6	51.6
Wood products	25.0	21.7	-13.1	3.0
Non-metallic mineral products	14.5	14.2	-2.0	2.
Primary metals	53.0	55.2	4.3	9.
Fabricated metal products	36.6	36.9	0.6	6.
Machinery	32.3	33.4	3.6	5.
Computer and electronic products	19.0	19.2	1.0	3.
Electrical equipment, appliance and component	10.7	10.4	-2.8	1.
Transportation equipment	116.1	97.3	-16.2	16.
Motor vehicles	60.6	47.3	-22.0	7.
Motor vehicle body and trailers	4.9	3.7	-23.9	0.
Motor vehicle parts	27.6	21.9	-20.6	3.
Aerospace products and parts	16.3	18.4	12.8	3.
Railroad rolling stock	1.9	1.7	-13.9	0.
Ship and boat building	1.5	1.4	-10.1	0.
Other transportation equipment	3.2	2.9	-9.4	0.
Furniture and related products	13.8	13.1	-4.5	2.
Miscellaneous	9.6	10.6	10.4	1.6

Note(s): Figures may not add to totals due to rounding. Source(s): Statistics Canada, CANSIM table 304-0014.

Table 2
Manufacturing sales by province, 2007 and 2008

	2007	2008	Change, 2007 to 2008	Share, 2008
	\$ billions		percent	
Newfoundland and Labrador	5.3	6.6	26.2	1.1
Prince Edward Island	1.4	1.4	-3.8	0.2
Nova Scotia	9.9	10.7	8.8	1.8
New Brunswick	15.7	17.9	14.0	3.0
Quebec	148.3	150.9	1.8	24.9
Ontario	291.7	278.3	-4.6	46.0
Manitoba	16.1	16.4	1.8	2.7
Saskatchewan	10.4	12.3	17.6	2.0
Alberta	65.6	70.1	6.9	11.6
British Columbia	42.9	40.0	-6.8	6.6
Yukon	0.0	0.0	18.4	0.0
Northwest Territories	0.0	0.0	-13.8	0.0
Nunavut	0.0	0.0	-12.7	0.0
Canada	607.3	604.7	-0.4	100.0

Note(s): Figures may not add to totals due to rounding. Source(s): Statistics Canada, CANSIM table 304-0015.

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Manufacturing: The Year 2007 in Review, Analysis in Brief, no. 70 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2008070-eng.htm

New Motor Vehicle Sales: 2007 in Review, Analysis in Brief, no. 69 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2008069-eng.htm

Turbulent stability: Canada's economy in 2007, Canadian Economic Observer, April 2008 http://www.statcan.gc.ca/pub/11-010-x/00408/10559-eng.htm

International Merchandise Trade Annual Review, no. 65-208X2007000 http://www.statcan.gc.ca/pub/65-208-x/65-208-x2007000-eng.htm

2006

Retailers Competing for Market Share: 2006 Retail Sales in Review, Analysis in Brief, no. 60 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2007060-eng.htm

Retail Trade: How the Provinces Fared in 2006, Analysis in Brief, no. 57 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2007057-eng.htm

Wholesale Trade: The Year 2006 in Review. Analysis in Brief, no. 56 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2007056-eng.htm

New Motor Vehicle Sales: 2006 in Review, Analysis in Brief, no. 54 http://www.statcan.gc.ca/pub/11-621-m/11-621-m2007054-eng.htm

Year end review: westward ho!, 2006, Canadian Economic Observer, April 2007 http://www.statcan.gc.ca/pub/11-010-x/00407/9615-eng.htm

International Merchandise Trade Annual Review, no. 65-208X2006000 http://www.statcan.gc.ca/pub/65-208-x/65-208-x2006000-eng.htm

2005

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http://www.statcan.gc.ca/pub/21-004-x/21-004-x2006002-eng.pdf

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